

Civil Report Card On GPS Performance

July 2006

Operational Performance Parameter	CY 2005	Long term	June 2006	July 2006	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	28.93	↓	27.48	28.44	↑
<i>Average number of satellites usable in primary slots</i>	23.80 (99.17%)	↓	22.48 (93.67%)	23.44 (97.66%)	↑
<i>Average availability of 6 satellites in view</i>	TBD%		99.94%	99.95%	→
99.99% Horizontal DOP					
<i>Area Median</i>	2.1	↑	1.9	1.6	↑
<i>Worst Site</i>	4.1	↑	7.7	4.0	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.8	↑	3.3	2.9	↑
<i>Worst Site</i>	5.6	↓	14.4	6.2	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	4.1	↑	3.7	3.2	↑
<i>Worst Site</i>	6.0	↓	16.0	6.9	↑
Accuracy Parameters					
<i>RMS Single Frequency User Range Error</i>					
<i>Constellation Median</i>	1.83 *	→	1.83	1.64	→
<i>Worst Satellite</i>	2.41 *	→	3.85	2.19	↑
95% Horizontal Error					
<i>Area Median</i>	3.44	↑	2.67	2.46	→
<i>Worst Site</i>	6.04	↑	4.73	3.04	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.67%	↑	99.63%	99.91%	↑
95% Vertical Error					
<i>Area Median</i>	5.83	↑	4.43	4.23	→
<i>Worst Site</i>	7.43	↑	5.21	4.63	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.93%	↑	99.89%	99.96%	↑

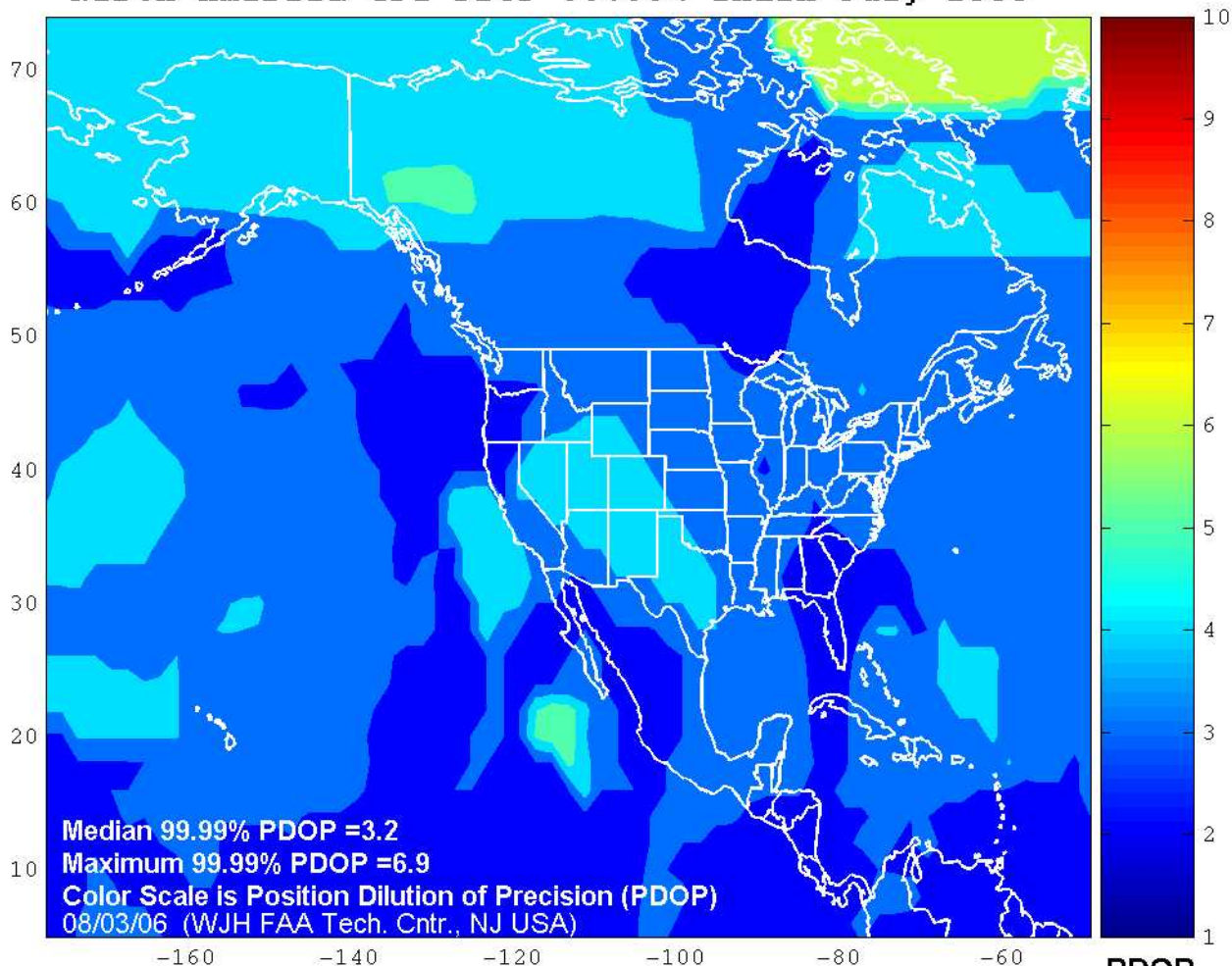
Key: ↑ improving ↓ worsening → no significant change

* CY 2006 (1 Jan – 30 June 2006)

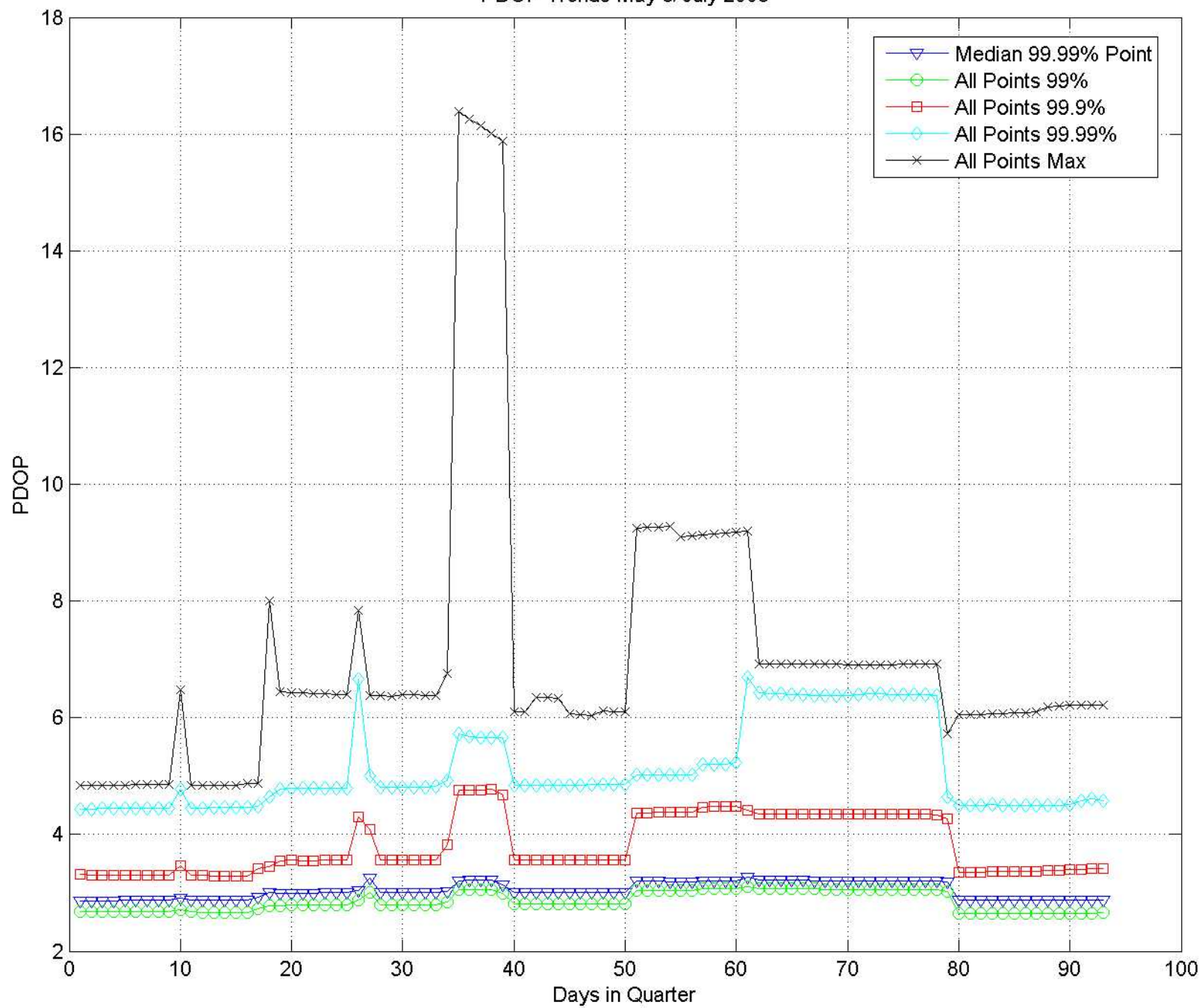
Long Term is current month vs. prior 24 months, Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

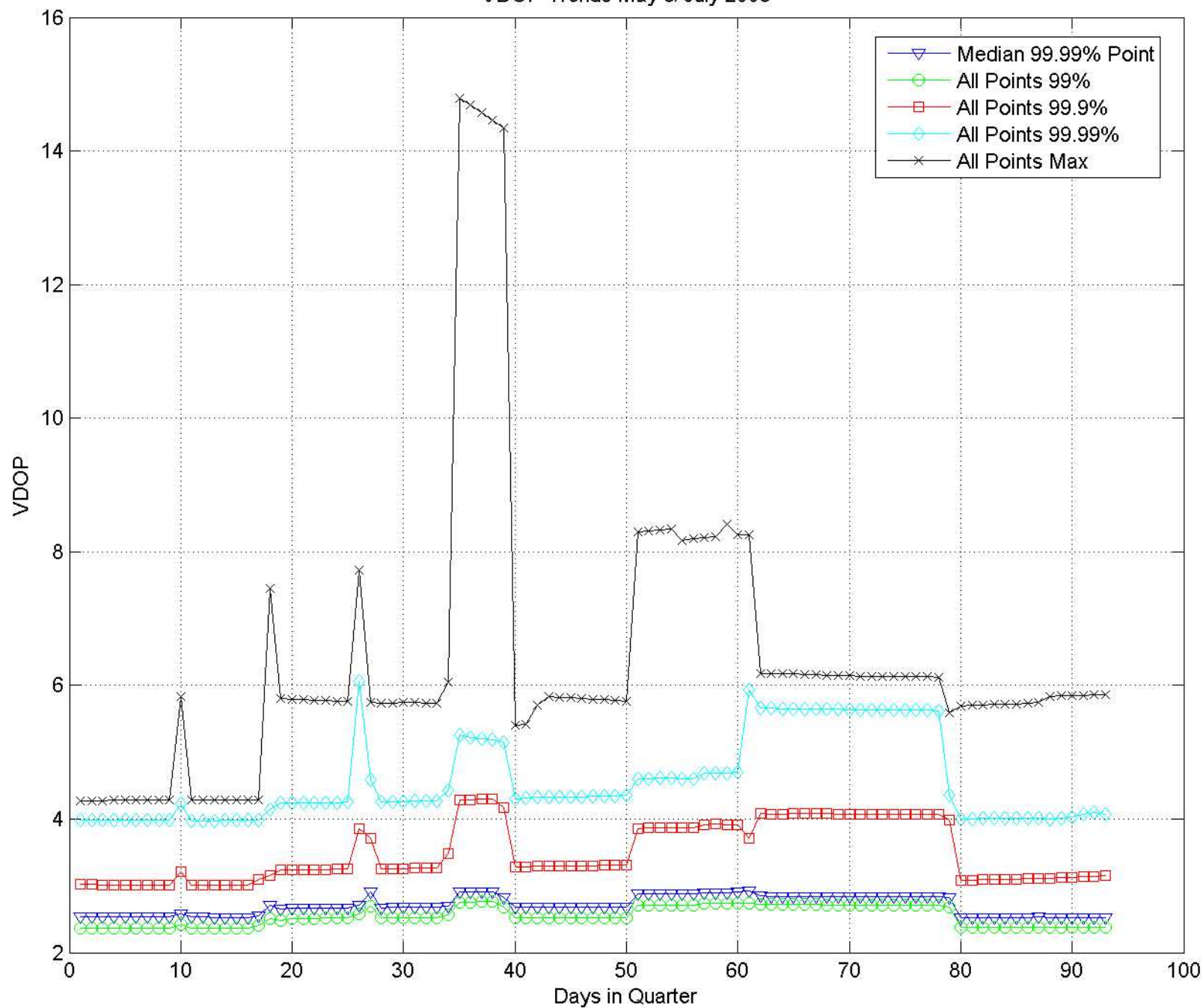
North America GPS PDOP 99.99% Index July 2006



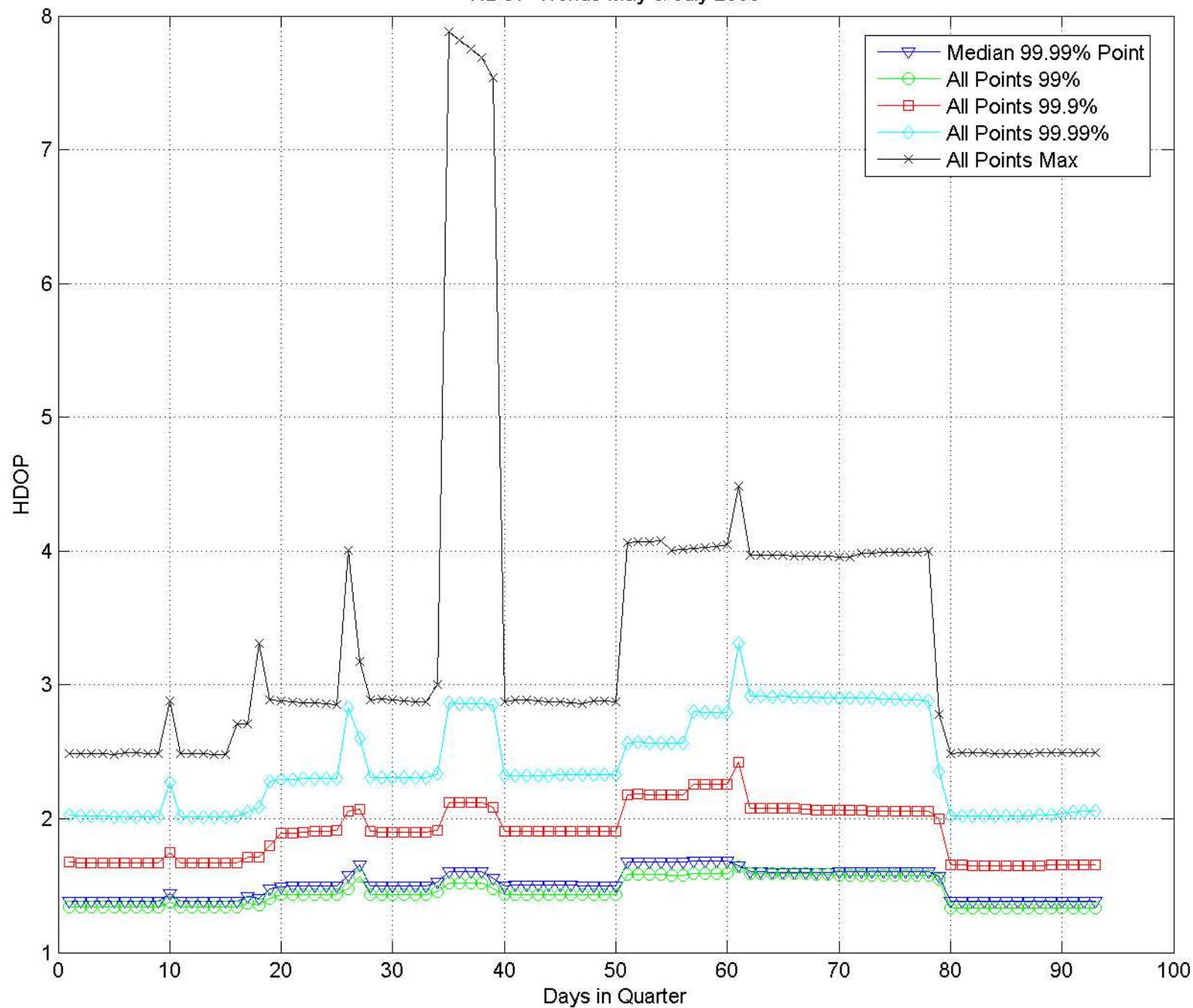
PDOP Trends May & July 2006



VDOP Trends May & July 2006



HDOP Trends May & July 2006



RAIM Availability Trends May & July 2006

